

REMARKS

An Office Action was mailed January 7, 2009. This response is timely. Any fee due with this paper, including any necessary extension fees, may be charged on Deposit Account 50-1290.

Summary

Claims 1-8 were examined. Claim 9 is withdrawn. The election of claim 1-8 without traverse is affirmed.

By the foregoing, claims 1-8 are amended. No new matter has been added. The rejections are respectfully traversed.

Rejection under 35 U.S.C. §112

Claims 1-8 stand rejected under 35 U.S.C. §112, second paragraph as being indefinite for inconsistent recitation of “consisting of” and “comprising.” The claims are amended to overcome the rejection.

Rejection under 35 U.S.C. §102(b) and 35 U.S.C. §103(a)

Claims 1, 2, 4, 6, and 7 stand rejected under 35 U.S.C. §102(b) as being anticipated by WO 2001/45921 to Toncelli. Claim 3 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Toncelli in view of DE 3043869 to Rosendahl. Claim 5 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Toncelli in view of U.S. Patent No. 4,268,574 to Peccenini. Claim 8 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Toncelli in view of U.S. Patent No. 4,959,401 to Bellasalma.

The rejections are respectfully traversed for the reasons give below.

The presently claimed invention is a method of producing dual-layer slabs comprising the steps of:

(a) preparing a first mix comprising a first hardening resin, a first filler, and a first granular material for forming the visible side of a dual-layer slab;

(b) depositing a thin layer of the mix to form a first layer on a first support, the first support comprising one of a rubber material and elastic material, the first support being lined with a separating material;

(c) depositing a web of continuous glass filaments on an upper surface of the first layer, the web of continuous glass filaments being pre-impregnated with one of the first hardening resin and a compatible resin;

(d) depositing a second mix comprising a second filler, a second granular material, and one of the first hardening resin and a compatible resin on an upper surface of the web to form a second layer, the second granular material being a light weight granular material, the one of the same hardening resin used in the mix and a compatible resin being present in the second mix with a volumetric percentage substantially equal to a volumetric percentage of the hardening resin in the first mix;

(e) applying a second support onto an upper surface of the second layer, the second support comprising a rubber material and elastic material, the second support being lined with a separating material;

(f) vacuum compaction by means of application of a pressure on top of said second support and simultaneous application of a vibratory movement of predetermined frequency;

(g) hardening of the hardening resin by means of the action of heat and/or a catalyst;

*(h) finishing dual-layer slab;
wherein the first and second filler comprise a fine powder.*

1. Toncelli '921 does not teach, disclose, or suggest "depositing a web of continuous glass filaments on an upper surface of the first layer."

While in the same general art, Toncelli '921 refers to a completely different product and manufacturing process. Specifically, Toncelli '921 relates to a manufacturing process where a slab of agglomerate is coupled to a foil of thermoplastic material to create a composite product. Coupling the slab to a foil of thermoplastic material enhances to a noticeable extent the mechanical properties of the product. Toncelli '921 makes it possible to reduce the thickness of the slab and maintain the same strength. This results in a general reduction in weight and increased usability of the slab.

Toncelli '921 fails to teach, disclose, or suggest the presently claimed step of

(c) depositing a web of continuous glass filaments on an upper surface of the first layer, the web of continuous glass filaments being pre-impregnated with one of the first hardening resin and a compatible resin.

Rather, Toncelli '921 teaches that the filamentous aggregates, i.e., inorganic fiber like glass and/or basalt fibers, are added to the mixture during the mixing phase. Although, another embodiment of Toncelli '921 teaches glass fiber, the glass fibers are in the form of gauze (net) formed by bundles of glass filaments where the mesh has openings of approx. 10 mm. The glass fiber gauze is then placed on the thermoplastic foil protrusions or is embedded in the thickness of the mixture, which is then poured in two subsequent steps.

In other words, in the presently claimed invention, the web of continuous glass filament is pre-impregnated with a resin and constitutes a layer interposed between two agglomerate layers to form a separation. Toncelli '921 fails to teach, disclose, or suggest this aspect and in particular fails to teach, disclose, or suggest that a web of continuous glass filaments on an upper surface the first layer that is constituted from a mix including granular material to form a second layer. Accordingly, the Examiner is respectfully requested to withdraw the rejections of claims 1-8.

2. Toncelli '921 does not teach, disclose, or suggest depositing a second mix comprising a second filler, a second granular material, and one of the first hardening resin and a compatible resin on an upper surface of the web to form a second layer formed from a web.

Toncelli '921 fails to teach, disclose, or suggest the presently claimed step of

(d) depositing a second mix comprising a second filler, a second granular material, and one of the first hardening resin and a compatible resin on an upper surface of the web to form a second layer, the second granular material being a light weight granular material, the one of the same hardening resin used in the mix and a compatible resin being present in the second mix with a volumetric percentage substantially equal to a volumetric percentage of the hardening resin in the first mix.

Toncelli '921 does not disclose depositing a second mix an upper surface of the web, to form a second layer, wherein the second mix of a mix formed by hardening resin having a nature identical to or compatible with that present in the first layer, by a filler and by a light granular material.

In support thereof are cited pg. 20, lines 19-25, i.e., claims 18 and 19. However, claim 18 discloses adding a thermoplastic foil after a mixture pouring step. In the presently claimed invention, the steps are of a mix is deposited on a web material. Claim 19 discloses a

thermoplastic foil that is added to a mixture after a first layer of mixture has been poured and the first mix has been poured onto a support and is then covered with a second layer of mixture. In the presently claimed invention, a web and not a thermoplastic foil is added to a mix and then a mix is deposited over that web.

Accordingly, the Examiner is respectfully requested to withdraw the rejection.

3. Toncelli '921 does not teach, disclose, or suggest depositing a second mix comprising a second filler, a second granular material, and one of the first hardening resin, wherein the second granular material being a light weight granular material.

Toncelli '921 fails to teach, disclose, or suggest the presently claimed step of

(d) depositing a second mix comprising a second filler, a second granular material, and one of the first hardening resin and a compatible resin on an upper surface of the web to form a second layer, the second granular material being a light weight granular material, the one of the same hardening resin used in the mix and a compatible resin being present in the second mix with a volumetric percentage substantially equal to a volumetric percentage of the hardening resin in the first mix.

Moreover, Toncelli '921 does not teach, disclose, or suggest that the second granular material is a light weight granular material. In fact, nothing in Toncelli '921 is directed to a difference in granular material. Accordingly, the Examiner is respectfully requested to withdraw the rejection.

4. Toncelli '921 does not teach, disclose, or suggest a light granular material present in the second mix of said second layer is an expanded inorganic material with a substantially spheroidal form, the granules having a size of between 0.1 and 6.0 mm.

With regard to claim 2, Toncelli '921 does not teach, disclose, or suggest the use of an expanded inorganic material as claimed. Rather, Toncelli '921 teaches a use of inorganic materials in granular or powder form with a grain size of max. 1.2 mm. Accordingly, the Examiner is respectfully requested to withdraw the rejection.

All dependent claims are allowable for at least the same reasons as the independent claim from which they depend.

In view of the remarks set forth above, this application is believed to be in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper, including any necessary extension fees, may be charged on Deposit Account 50-1290.

Respectfully submitted,

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